

WHAT IS CLAIMED IS:

5 1. A multi-layer decorative laminate for applying a
layer of color to a substrate surface, the laminate
comprising:

 a dry paint layer comprising a color layer which includes
a binder and a pigment, the dry paint layer having an upper
10 surface and a lower surface,

 a pressure-sensitive adhesive layer overlying the upper
surface of the dry paint layer and adapted for adhering the
laminate to a substrate surface at room temperature;

 a release liner overlying the lower surface of the dry
15 paint layer, the release liner removable from the dry paint
layer at room temperature for exposing an outer surface of the
dry paint layer when the pressure-sensitive adhesive layer
adheres the laminate to the substrate surface under
application of pressure and the release liner is peeled away
20 from the dry paint layer; and

 a thin flexible barrier layer disposed between the
adhesive layer and the color layer, the barrier layer made
from a material that inhibits migration of discoloration-
causing pigments from a painted surface of the substrate
25 through the adhesive layer to the color layer sufficiently to
essentially prevent noticeable color change caused by the
migrating pigments from occurring in the color layer under
room temperature conditions,

 in which the barrier layer material is selected from the
30 group consisting of an acrylic resinous material which has
been cross-linked to an amount sufficient to reduce pigment
transmission to the color layer, a polymeric material
containing an adhesion promoter, a high molecular weight
acrylic resinous material having a molecular weight in excess
35

of 250,000, a polymeric material containing a fine particulate dispersed filler material that reduces pigment transmission to the color layer, and a barrier filler material comprising a metal oxide, a metal compound and/or a metal salt.

2. The article according to claim 1 in which the barrier layer is applied at a dry film thickness in the range of about 0.05 to about 0.20 mil.

3. The article according to claim 1 in which the barrier layer has a glass transition temperature (T_g) greater than about 60°C.

4. The article according to claim 1 in which the barrier material has a dry film thickness of not more than about 10% of the total thickness of the decorative laminate (exclusive of the release liner).

5. The article according to claim 1 in which the laminate further includes a tie coat for enhancing adhesion between the cross-linked barrier layer and the pressure-sensitive adhesive layer.

6. The article according to claim 1 in which the pressure-sensitive adhesive comprises a cross-linked acrylic resinous material.

7. The article according to claim 1 in which the pressure-sensitive adhesive comprises an internally cross-linked acrylic emulsion.

8. The article according to claim 1 in which the release liner comprising a matte release coat comprising a cross-linked resinous material bonded to the release liner and

having a micro-roughened surface that transfers a matte surface finish to the dry paint layer.

5 9. The article according to claim 8 in which the dry paint layer comprises a pigmented color coat layer and a transparent outer clear coat layer bonded to the color coat and in contact with the release liner.

10 10. The article according to claim 9 in which the transparent outer clear coat layer comprises an acrylic resinous material.

15 11. The article according to claim 10 in which the pressure-sensitive adhesive layer comprises a cross-linked acrylic resinous material.

20 12. The article according to claim 1 in which the barrier layer material produces a color shift of less than about 0.30 Δb^* C.I.E. color scale shift units at 60°C.

 13. A multi-layer decorative laminate for applying a layer of color to a substrate surface, the laminate comprising:

25 a dry paint layer comprising a color layer which includes a binder and a pigment, the dry paint layer having an upper surface and a lower surface,

 a pressure-sensitive adhesive layer overlying the upper surface of the dry paint layer and adapted for adhering the laminate to a substrate surface at room temperature;

30 a release liner overlying the lower surface of the dry paint layer, the release liner removable from the dry paint layer at room temperature for exposing an outer surface of the dry paint layer when the pressure-sensitive adhesive layer adheres the laminate to the substrate surface under

application of pressure and the release liner is peeled away from the dry paint layer; and

5 a thin flexible barrier layer disposed between the adhesive layer and the color layer, the barrier layer having a glass transition temperature greater than about 60°C and made from a material that inhibits migration of discoloration-causing pigments from a painted surface of the substrate
10 through the adhesive layer to the color layer, in which the barrier material has a dry film thickness of not more than about 10% of the total thickness of the decorative laminate (exclusive of the release liner).

15 14. The article according to claim 13 in which the barrier layer is applied at a dry film thickness in the range of about 0.05 to about 0.20 mil.

20 15. The article according to claim 13 in which the barrier layer comprises an acrylic resinous material which has been cross-linked to an amount sufficient to reduce the pigment transmission to the color layer.

25 16. The article according to claim 13 in which the barrier layer material includes an adhesion promoter.

30 17. The article according to claim 13 in which the laminate further includes a tie coat for enhancing adhesion between the cross-linked barrier layer and the pressure-sensitive adhesive layer.

35 18. The article according to claim 13 in which the barrier layer material comprises a high molecular weight acrylic resinous material having a molecular weight in excess

of 250,000.

5 19. The article according to claim 13 in which the barrier layer material contains a fine particulate dispersed filler material that reduces the pigment transmission to the color layer.

10 20. The article according to claim 19 in which the barrier filler material comprises a metal oxide, a metal compound and/or a melt salt.

15 21. The article according to claim 13 in which the pressure-sensitive adhesive comprises a cross-linked acrylic resinous material.

20 22. The article according to claim 13 in which the barrier layer material produces a color shift of less than about 0.30 Δb^* C.I.E. color scale shift units at 60°C.

23. A multi-layer decorative laminate for applying a layer of color to a substrate surface, the laminate comprising:

25 a dry paint layer comprising a color layer which includes a binder and a pigment, the dry paint layer having an upper surface and a lower surface,

 a pressure-sensitive adhesive layer overlying the upper surface of the dry paint layer and adapted for adhering the laminate to a substrate surface at room temperature;

30 a release liner overlying the lower surface of the dry paint layer, the release liner removable from the dry paint layer at room temperature for exposing an outer surface of the dry paint layer when the pressure-sensitive adhesive layer

35

adheres the laminate to the substrate surface under application of pressure and the release liner is peeled away from the dry paint layer; and

5 a thin flexible barrier layer disposed between the adhesive layer and the color layer, the barrier layer comprising an acrylic resinous material and a fine particulate additive comprising a metal compound, a metal oxide and/or a metal salt dispersed in the acrylic resinous material in an amount that reduces migration of or captures migrating discoloration-causing pigments from a painted surface of the substrate through the adhesive layer to the color layer,

10 in which the barrier layer material produces a color shift of less than about 0.30 Δb^* C.I.E. color scale shift units at 60°C.

15 24. The article according to claim 23 in which the barrier layer is applied at a dry film thickness in the range of about 0.05 to about 0.20 mil.

20 25. The article according to claim 23 in which the barrier layer has a glass transition temperature (T_g) greater than about 160°C.

25 26. The article according to claim 23 in which the barrier material has a dry film thickness of not more than about 10% of the total thickness of the decorative laminate (exclusive of the release liner).

30 27. A self-wound multi-layer laminate for applying a layer of color to a substrate surface, the laminate comprising:

35 a dry paint layer comprising a color layer which includes a binder and a pigment, the dry paint layer having an upper surface and a lower surface,

a pressure-sensitive adhesive layer overlying the upper
surface of the dry paint layer and adapted for adhering the
5 laminate to a substrate surface at room temperature;

 a release liner overlying the lower surface of the dry
paint layer, the release liner having a matte release coat
releasably adhered to the lower surface of the dry paint
layer, and an adhesive release coat layer on a side of the
10 release liner opposite from the dry paint layer, the release
liner and the matte release coat removable from the dry paint
layer at room temperature,

 the matte release coat transferring a matte finish to an
exposed surface of the dry paint layer when the pressure-
15 sensitive adhesive layer adheres the laminate to the substrate
surface under application of pressure and the release liner is
peeled away from the dry paint layer,

 the laminate adapted for being self-wound into a roll
with the pressure-sensitive adhesive layer in contact with the
20 adhesive release coat layer,

 the adhesive release coat layer and the pressure-
sensitive adhesive layer having an unwind release force
between them which is lower than a carrier release force
between the matte release coat and the dry paint layer, such
25 that the adhesive release coat preferentially releases the
liner from contact with the pressure-sensitive adhesive layer
when unwinding the laminate from its roll form, while the
matte release coat maintains contact with the dry paint layer
when the laminate is being unwound from its roll form, and

30 a barrier layer disposed between the adhesive layer and
the color layer and made from a material that inhibits
migration of discoloration-causing pigments from a painted
surface to which the adhesive side of the laminate is adhered,
the barrier material made of a composition adapted to

essentially prevent noticeable color change caused by the
migrating pigments from occurring in the color layer under
5 room temperature conditions,

in which the barrier layer material is selected from the
group consisting of an acrylic resinous material which has
been cross-linked to an amount sufficient to reduce pigment
transmission to the color layer, a polymeric material
10 containing an adhesion promoter, a high molecular weight
acrylic resinous material having a molecular weight in excess
of 250,000, a polymeric material containing a fine particulate
dispersed filler material that reduces pigment transmission to
the color layer, and a barrier filler material comprising a
15 metal oxide, a metal compound and/or a metal salt.

28. The article according to claim 27 in which the
barrier layer is applied at a dry film thickness in the range
of about 0.05 to about 0.20 mil.

20 29. The article according to claim 27 in which the
barrier layer has a glass transition temperature (T_g) greater
than about 160°C.

30 30. The article according to claim 27 in which the
barrier material has a dry film thickness of not more than
about 10% of the total thickness of the decorative laminate
(exclusive of the release liner).

30 31. The article according to claim 27 in which the
laminate further includes a tie coat for enhancing adhesion
between the cross-linked barrier layer and the pressure-
sensitive adhesive layer.

35 32. The article according to claim 27 in which the
barrier layer material produces a color shift of less than

about 0.30 Δb^* C.I.E. color scale shift units at 60°C.

5 33. A process for making a multi-layer decorative laminate for applying a layer of color to a substrate surface, the process comprising:

 forming a dry paint layer on a release liner, the dry paint layer comprising a color layer which includes a binder and a pigment, the dry paint layer having an upper surface and a lower surface,

 applying a pressure-sensitive adhesive layer to the upper surface of the dry paint layer, the adhesive layer adapted for adhering the laminate to a substrate surface at room temperature;

 the release liner overlying the lower surface of the dry paint layer, the release liner removable from the dry paint layer at room temperature for exposing an outer surface of the dry paint layer when the pressure-sensitive adhesive layer adheres the laminate to the substrate surface under application of pressure and the release liner is peeled away from the dry paint layer; and

 applying a thin flexible barrier layer between the adhesive layer and the color layer, the barrier layer made from a material that inhibits migration of discoloration-causing pigments from a painted surface of the substrate through the adhesive layer to the color layer sufficiently to essentially prevent noticeable color change caused by the migrating pigments from occurring in the color layer under room temperature conditions,

 in which the barrier layer material is selected from the group consisting of an acrylic resinous material which has been cross-linked to an amount sufficient to reduce pigment transmission to the color layer, a polymeric material

containing an adhesion promoter, a high molecular weight acrylic resinous material having a molecular weight in excess
5 of 250,000, a polymeric material containing a fine particulate dispersed filler material that reduces pigment transmission to the color layer, and a barrier filler material comprising a metal oxide, a metal compound and/or a metal salt.

10 34. The process according to claim 33 in which the barrier layer is applied at a dry film thickness in the range of about 0.05 to about 0.20 mil.

15 35. The process according to claim 33 in which the barrier layer has a glass transition temperature (T_g) greater than about 160°C.

20 36. The article according to claim 33 in which the barrier material is applied at a dry film thickness of not more than about 10% of the total thickness of the decorative laminate (exclusive of the release liner).

25 37. The process according to claim 33 including applying a tie coat for improving adhesion between the cross-linked barrier layer and the pressure-sensitive adhesive layer.

30 38. The process according to claim 33 in which the barrier layer material produces a color shift of less than about 0.30 Δb^* C.I.E. color shift units at 60°C.

35

35